3D Woven Flax Bargeboard Component for World's First Sustainable Racing Car. In conjunction with the Warwick Innovative Manufacturing Research Centre, University of Warwick and Industrial partners.

worldF3rst RACING

A force for sustainable motor racing

Greener racing. A look to the future


Motor sport is exciting, **dynamic** and fast paced.
These aren't words normally associated with
sustainable technologies.
We have focused our **energy** and **expertise** to challenge
this perception and bring **renewable technology**
to the **forefront** of motor sport design.
Our response is worldF3rst RACING

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"The **first** racing car designed and made from **sustainable** and **renewable** materials

Putting the world first by effectively managing the planet's **natural** resources"

F3 today, F1 tomorrow

Such an approach was not seriously considered until recently but we have now taken a quantum leap forward in the development of renewable racing car innovation.

The WorldFirst F3 racing car is sponsored by the Warwick Innovative Manufacturing Research Centre (WIMRC) and contributing partners. The project is managed by James Meredith, an engineer with considerable experience in the automotive industry and a passion for motor sport, under the supervision of Principal Investigators Dr Kerry Kirwan and Dr Steve Maggs.

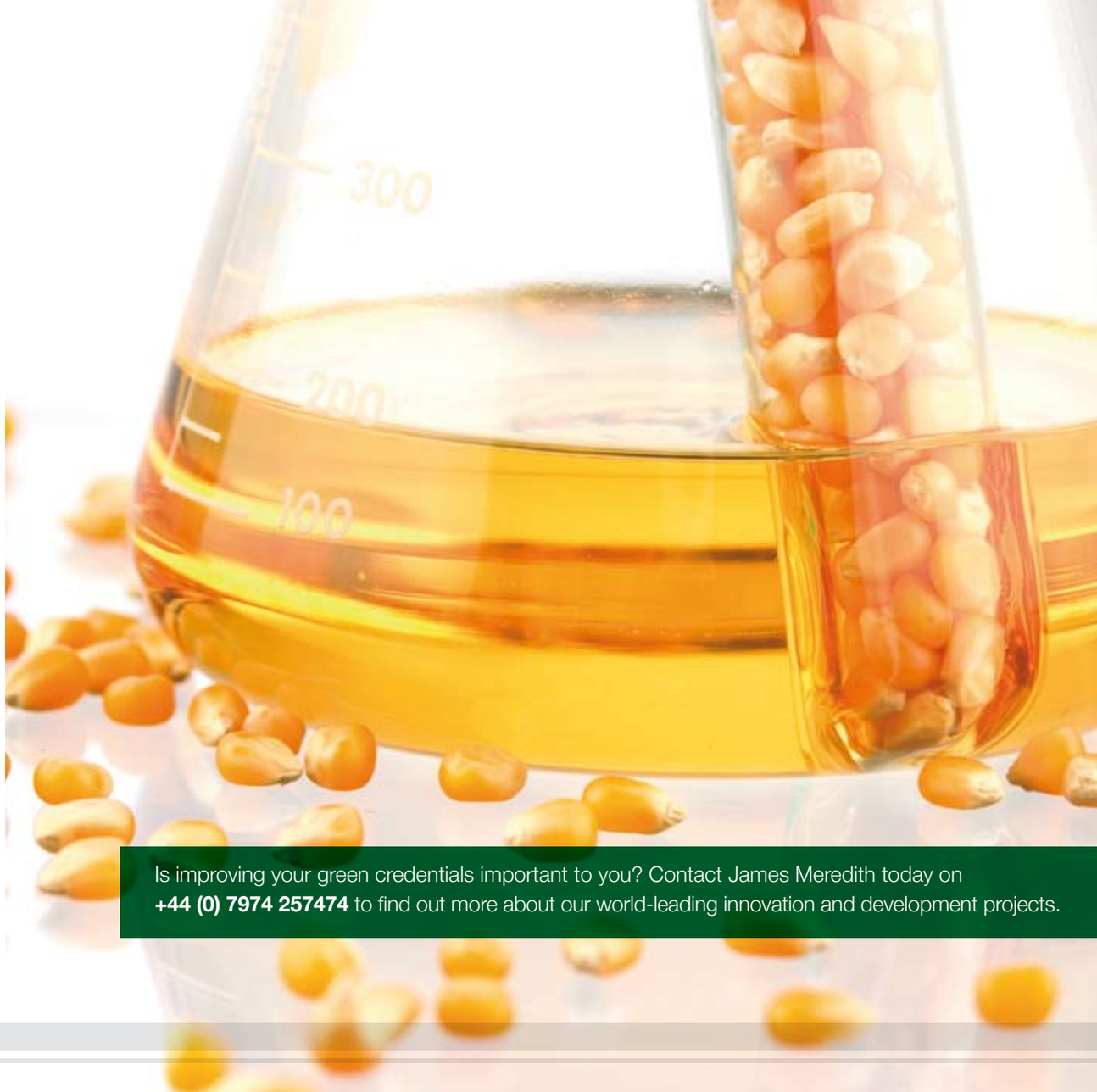
Why sustainability?

Reducing costs, improving eco-credentials, maximizing performance

Following the recent turmoil in F1 arising from the high costs of running competitive motor racing teams, and doubts in sponsors' minds over the commercial value of being involved, the viability of motor racing is being critically questioned. This comes at a time when the global economic downturn continues to make an increasing impact on consumers and companies alike. In particular this is causing the automobile industry to re-evaluate the cost/benefits available from motor sport involvement. Consequently, both motor racing and automotive manufacturers are increasingly looking towards innovative solutions to maximise return on investment. This is at a time when the motor industry has to become more environmentally friendly and sustainable while avoiding any compromises in performance.

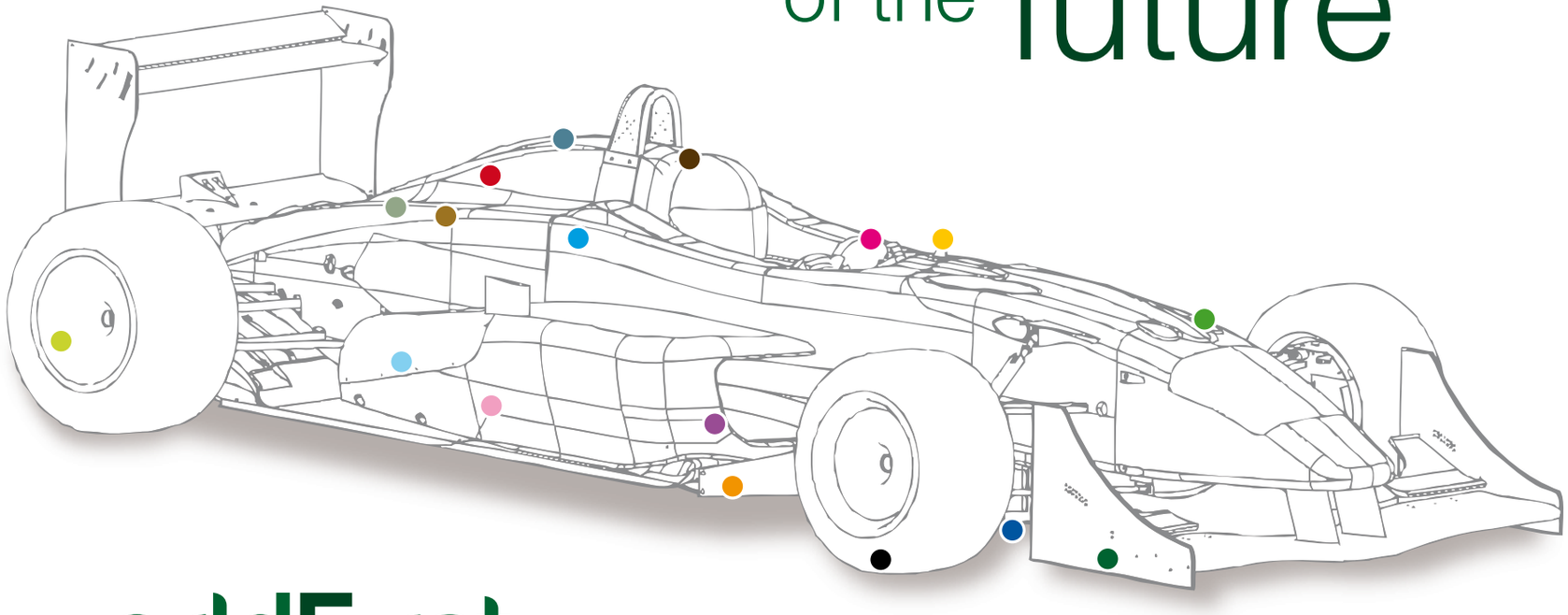
Having anticipated this scenario, WIMRC conceived a project intended to prove to the industry that it is possible to build a competitive racing car using environmentally sustainable components through the use of the latest research outputs.

The end result speaks for itself…



Is improving your green credentials important to you? Contact James Meredith today on **+44 (0) 7974 257474** to find out more about our world-leading innovation and development projects.

“Welcome to the sustainable racing car of the future”



- **Engine Cover**
  Recycled carbon fibre.
  Milled Carbon and Lola
- **Wiring Loom**
  Lightweight, halogen free and incorporating recycled materials. Yazaki
- **Barge Board**
  3 dimensionally woven natural fibre composite.
  University of Ulster
- **Engine**
  2 litre turbo diesel.
  Biodiesel calibration by Scott Racing
- **Brakes**
  Non carbon discs with low embodied energy. Cashew nut shell pads in development.
- **Side Pod Closing Panel**
  Flax fibre and resin from recycled bottles.
  Andy Fox and Cray Valley
- **Side Pod**
  Glass fibre with resin from recycled bottles.
  Andy Fox and Cray Valley
- **Radiators**
  Coated with a catalyst which converts ozone to oxygen. BASF PremAir
- **Seat**
  Flax fibre shell, soy bean oil foam and recycled polyester fabric. Lear
- **Steering Wheel**
  Polymer derived from carrots and other root vegetables. Cellucomp
- **Wing Mirrors**
  Potato starch core and flax fibre shell.
  Biopolymer Network
- **Damper Hatch**
  Recycled carbon fibre.
  Milled Carbon and Lola
- **Front Wing End Plate**
  Potato starch core and flax fibre shell. Biopolymer Network
- **Bib**
  Woven flax fibre prepreg material.
  Lola and Lineo
- **Tyres**
  Elimination of polycyclic aromatics. Avon
- **Lubricants**
  Plant oil based lubricants. Fuchs
- **Brand Strategy**
  Team naming, identity and design.
  Life

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Helping UK manufacturing sector compete on the global stage

Originally set up in October 2001, the Warwick Innovative Manufacturing Research Centre (WIMRC) at the University of Warwick draws on the resources of several departments and applies design, technology and management research to challenging problems in the Vehicle and Healthcare sectors with a focus on sustainable development in two themes: Intelligent and Eco-Friendly Vehicles and Next Generation Healthcare.

Like the WorldFirst F3 racing car, all projects are relevant to providing commercially viable solutions that meet the future needs of UK organisations competing in the global marketplace.

The Engineering and Physical Sciences Research Council (EPSRC) supply the majority of funding with supplementary support from collaborating partners.

WARWICK IMRC Innovative Manufacturing Research Centre ...making a difference

THE UNIVERSITY OF WARWICK

WMG Innovative Solutions

Want to utilise our expert knowledge on your project? Contact James Meredith today on **+44 (0) 7974 257474** to arrange an initial exploratory meeting to see how we can add value.

Contact us

“Some said we’d never see the day”

Many wouldn’t have believed that a competitive environmentally friendly F3 car could be produced but we’ve proved otherwise.

If you are interested in finding out more about the WorldFirst project or work with an organisation committed to growth via the adoption of innovative manufacturing solutions, we would love to hear from you.

Call one of our **project team** today.

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